SERVICE MANUAL
732
UNIT

PCR Terminal Display
4512 201 01711
4512 201 01712

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SERVICE MANUAL - UNIT

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1. Introduction and Technical Data

1.1. General Use

The PCR Terminal Display is the input and display device of the PCR User Terminal (USIT) and is connected to the USIT PC.

A PCR User Terminal controls the acquisition of Philips Computed Radiography (PCR) images which are read by Readers, e.g. AC5000 and PCR Compano Reader.

There are two types of PCR User Terminals:

- Basic Terminal (belongs to a basic PCR system, single terminal installation)
- Additional Terminal (for multi terminal / multi reader installation)

A PS/2 Barcode Scanner can be connected in series to the keyboard and the buttons of the operation panel.
It is needed to guarantee that the right Image Plate will be linked to the corresponding patient data. In conjunction with an AC3 reader it is possible to work without a barcode scanner.

1.2. Technical Data

Dimensions:	340 mm x 430 mm x 60 mm (H x W x D)
	approx. 5 kg
Environment:	
Operation temperature:	10° ... 40° C
Humidity:	40 ... 80 %
Electrical Input:	100V … 240V, 50 … 60 Hz
	max. 50 VA
Heat output:	100 BTU/hr
Features:	- TFT color display
	- VGA connector
	- Two PS/2 connectors
	- USB support

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1.3. Characteristics of the built-in TFT Display

Excerpt from the data sheet of the TFT display (with friendly permission of the distributor of NEC displays):

The following items are neither defects nor failures.

① Response time, luminance and color may be changed by ambient temperature.
② The LCD may be seemed luminance non-uniformity, flicker, vertical seam or small spot by display patterns.
③ Optical characteristics (e.g. luminance, display uniformity, etc.) gradually is going to change depending on operating time, and especially low temperature, because the LCD has cold cathode fluorescent lamps.
④ Do not display the fixed pattern for a long time because it may cause image sticking. use a screen saver, if the fixed pattern is displayed on the screen.
⑤ The display color may be changed by viewing angle because of the use of condenser sheet in the backlight unit.
⑥ Optical characteristics may be changed by input signal timings.

1.4. Compatibility

PCR PC	4512 201 0139x
	4512 201 0361x
PCR User Terminal (Basic)	9897 010 0045x
PCR Additional Terminal	9897 010 0053x

1.5. Scope of Delivery

- Operation Panel
- Power cable (Europe)
- Power cable (USA), pre-installed
- VGA cable
- PS/2 cable
- Set of two feet
- Wall Mount for Operation Panel (option)

Optional parts for replacements:
- PS/2 Barcode Scanner VT 3080 incl. Y cable: 4512 131 81101
- Holder for barcode scanner 4512 131 81101 incl. installation material: 4512 131 81121

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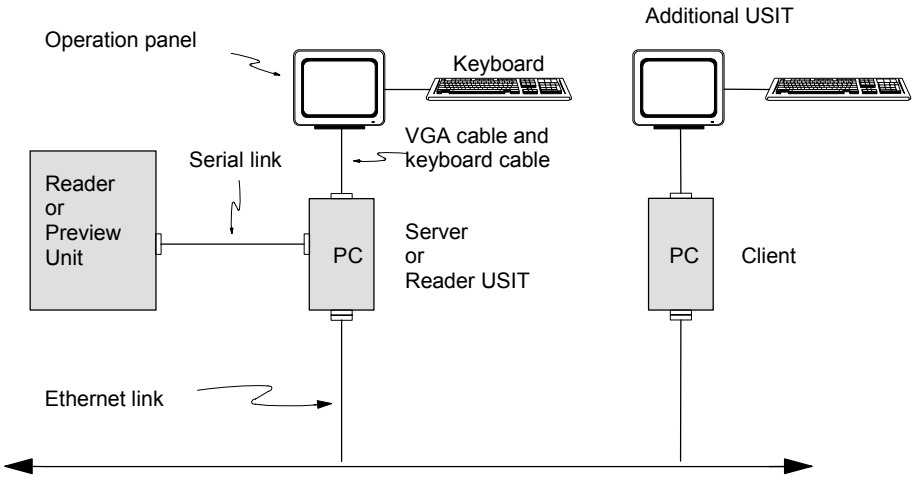
2. Installation

2.1. Site Considerations and Preparation

The system is designed to operate in a typical clinical environment.
Choose a site that is:
- Clean and dust-free.
- Well ventilated and away from sources of heat including direct sunlight.
- Isolated from strong electromagnetic fields produced by electrical devices (such as air conditioners, large fans, large electric motors, radio and TV transmitters, high-frequency security devices and other medical equipment).

2.2. Cabling

2.2.1. Overview



2.2.2. Power Cords

In some cases, the power cord supplied with this system may not be compatible with the AC wall outlet in your country. If this is true, you must obtain a suitable power cord that meets the following criteria:
- The cord must be rated for use at the AC voltage available, with a current rating that is at least 125% of the current rating of the product.
- The AC plug end must be terminated in a grounding–type male plug designed for use in your country. The cord must be labeled or marked to indicate it has been certified by an agency acceptable in your country.
- The connector at the product end must be an EN60320 female connector (or the equivalent IEC 320 connector, sheets C13-14).
- The cord must be less than 4.5 m (14.8 feet) long and be created with <HAR> (harmonized) cordage.

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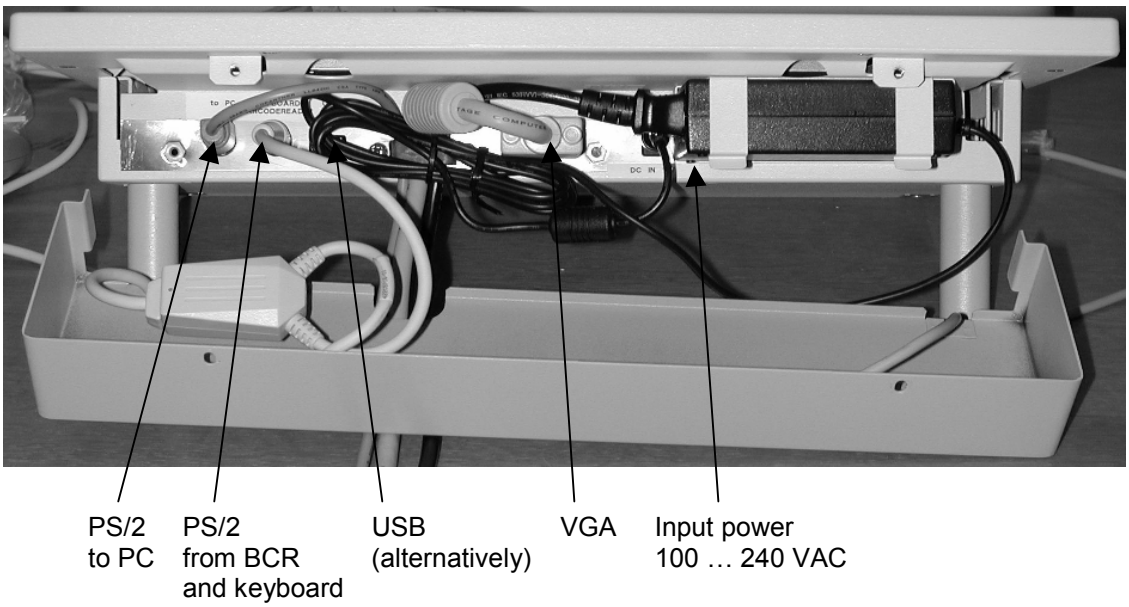
2.2.3. Connecting the Cables

- Connect the PS/2 cable going to the USIT PC.
- Connect the keyboard and the PS/2 barcode scanner (option) in series.
- Connect the VGA cable going to the USIT PC.
- Connect the power supply cable.
- Fix the cables with the cable clamp, then close the cover.



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2.3. Mechanical Parts

The operation panel can be placed either on a table by using the delivered two feet or with the aid of the special mounting frame (option) at the wall.

Optional:

A barcode scanner of the type VT 3080 (4512 131 81101) is attachable at both sides of the panel.

The holder 4512 131 81121 for this type of barcode scanner can be installed together with two edges in a straight or inclined position.

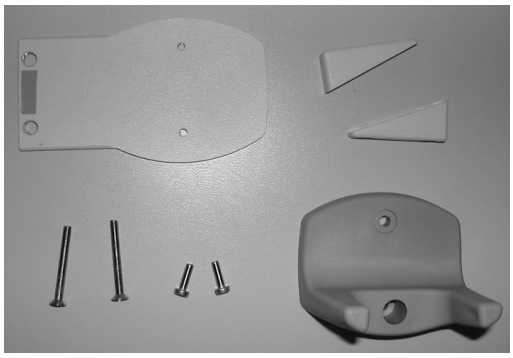

Figure: Parts of the Barcode Scanner

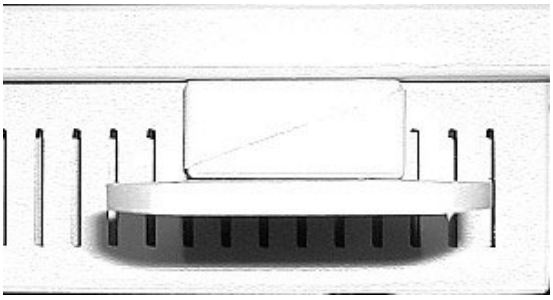

Figure: Holder installed straight.

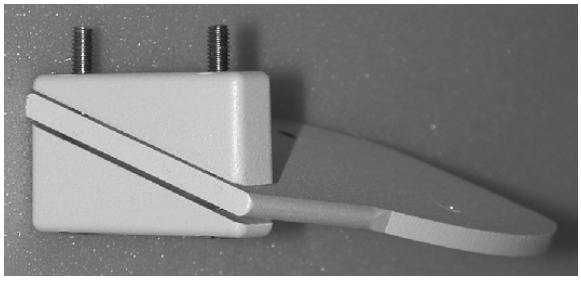

Figure: Holder inclined by the wedges

If the operation panel has been mounted at the wall the holder of the barcode scanner must be installed inclined.

Note:

For new deliveries the PS/2 barcode scanner VT 3080 has been substituted by an USB type one, e.g. IT 3800. The USB barcode scanner must be connected direct to an USB port at the rear side of the PC.

In the scope of the delivery of the USB barcode scanner is an own holder being not attachable to the operating panel.

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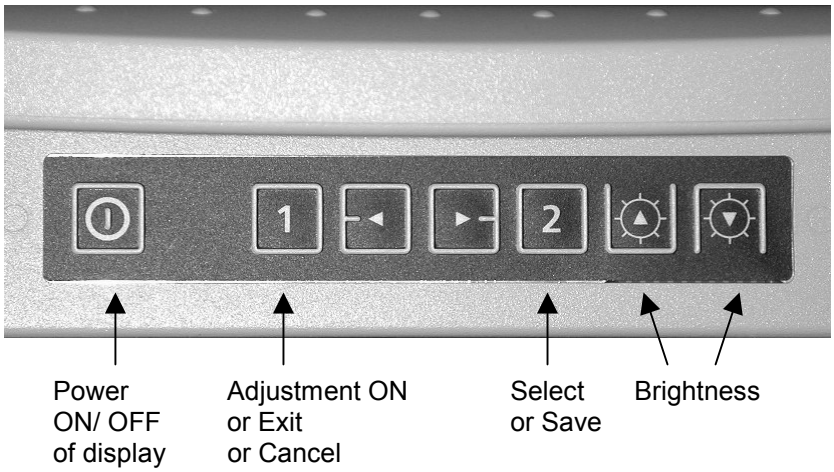
2.4. Power -up

The operation panel will be switched on remotely via the VGA signal from the USIT PC.
If necessary the power button at the front of the operation panel has to be pressed.

2.5. Adjusting the Display

The buttons for adjusting the display are accessible at the front of the operation panel.
The adjustment has to be done separately for both the text mode (service screen) and the graphic mode (user screen).

- Press button 1 to start the adjustment and follow the symbols.



Use Auto Phase and Auto Center to adjust the display.

3. Faultfinding

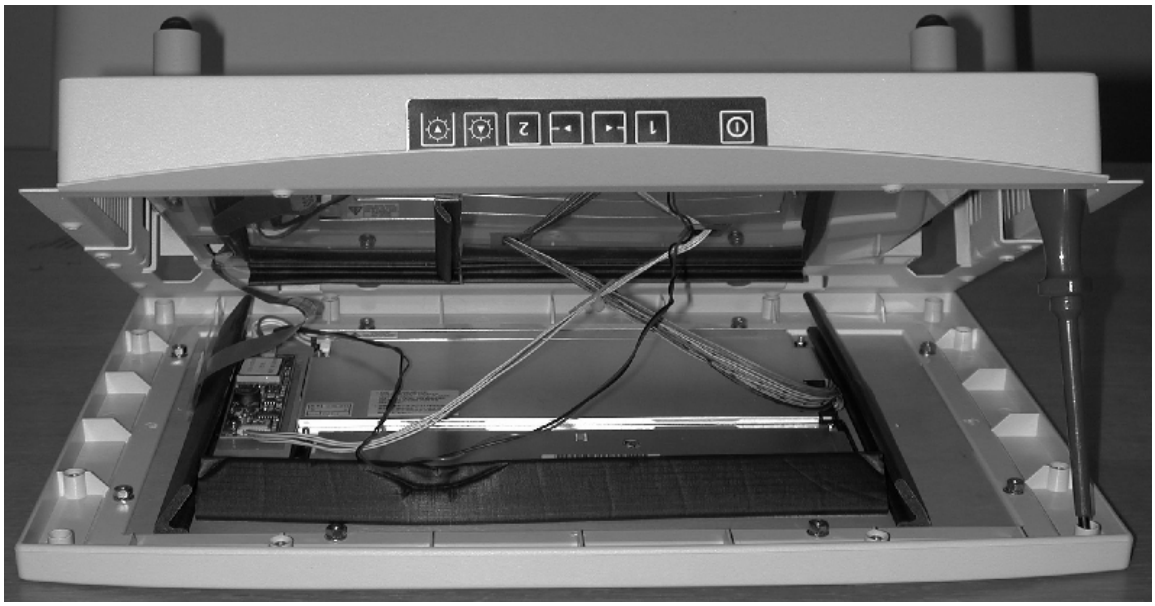
Display does not work:	Check power supply, internal wiring and VGA connection to the PC.
One spot is permanently displayed:	Allowed according to the specification of the manufacturer
One or more buttons do not work:	Check internal wiring.
Attached keyboard and/or barcode scanner do not work:	Check connection to the PC.

4. Replacements

Before you begin: Remove the power supply cable.

The complete operation panel is a Field Exchangeable Unit except the integrated power supply unit.

However, if the panel has to be opened please note that the internal wiring is very short.



5. Programmings

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